CEREALS CANADA

Canada's New Wheat Crop Report, Growing Quality

2024 Crop Summary

CWRS
Canada Western Red Spring

The most widely grown wheat class in Western Canada, CWRS is regarded for its superior milling and baking quality. This hard wheat has high protein content and high protein quality which means it can improve the quality of a blend if milled with lower-quality wheat.

Top Five CWRS Varieties Grown in 2024

1. AAC Brandon
2. AAC Wheatland
3. AAC Starbuck
4. AAC Viewfield
5. AAC Hodge

2024 EXECUTIVE SUMMARY

PRODUCTION
(5-year average, 2019-2023)

20.1 million tonnes

% of TOTAL WHEAT GROWN IN CANADA

63%

Advice from an Expert

CWRS from the 2024 crop year continues to provide high protein content with good gluten strength and extensibility. It remains an excellent choice as an improver wheat in blending situations.

Grading Factors

A very high proportion of the 2024 CWRS crop graded No. 1 or No. 2.

Protein

High protein content that is similar to the 5-year average.

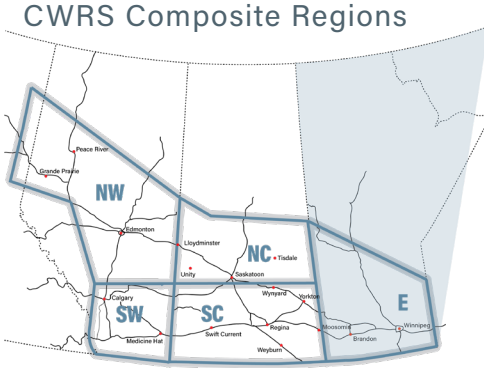
Milling Quality

CWRS from the 2024 crop year has high test weight and good milling yield.

Application Performance

CWRS from the 2024 crop produced pan bread with good loaf volume, crumb colour and crumb structure, and noodles with good colour retention and texture.

FIGURE 1
2024 Western Canada CWRS Composite Regions



WESTERN COMPOSITE

No. 1 CWRS
Canada Western Red Spring

Quality Parameter [a]	Western Composite [b]		
Wheat	2024	2023	5 yr avg.
Test Weight, kg/hL	83	82	83
Weight Per 1000 Kernels, g	33.2	34.0	34.3
Protein Content, %	14.0	14.3	14.1
Protein Content, % (dry matter basis)	16.2	16.5	16.3
Wet Gluten Content, %	33.4	32.2	34.5
Gluten Index, %	88	88	81
Ash Content, %	1.50	1.36	1.46
Falling Number, s	409	399	395
Particle Size Index[c], %	54	54	-
Milling Flour Yield Bühler Laboratory Mill			
Total Products Basis, %	75.5	75.1	75.1
0.50% Ash Basis, %	77.5	78.6	78.1

EASTERN COMPOSITE

No. 1 CWRS
Canada Western Red Spring

Quality Parameter [a]	Eastern Composite [b]		
Wheat	2024	2023	5 yr avg.
Test Weight, kg/hL	84	83	83
Weight Per 1000 Kernels, g	33.8	37.2	34.6
Protein Content, %	14.1	14.1	14.3
Protein Content, % (dry matter basis)	16.3	16.3	16.6
Wet Gluten Content, %	34.2	32.9	34.6
Gluten Index, %	83	90	82
Ash Content, %	1.59	1.41	1.52
Falling Number, s	392	384	384
Particle Size Index[c], %	54	53	-
Milling Flour Yield Bühler Laboratory Mill			
Total Products Basis, %	75.7	75.1	75.8
0.50% Ash Basis, %	77.2	77.6	77.6

PRAIRIE COMPOSITE

No. 2 CWRS
Canada Western Red Spring

Quality Parameter [a]	Prairie Composite [b]		
Wheat	2024	2023	5 yr avg.
Test Weight, kg/hL	81	82	81
Weight Per 1000 Kernels, g	33.0	36.1	35.0
Protein Content, %	14.0	13.5	13.9
Protein Content, % (dry matter basis)	16.2	15.6	16.0
Wet Gluten Content, %	32.8	29.5	32.7
Gluten Index, %	90	94	84
Ash Content, %	1.58	1.36	1.50
Falling Number, s	384	372	357
Particle Size Index[c], %	56	52	-
Milling Flour Yield Bühler Laboratory Mill			
Total Products Basis, %	75.2	75.8	75.5
0.50% Ash Basis, %	77.7	79.8	78.0

[a] Data are reported on a 13.5% moisture basis.

[b] Refer to crop region map (Figure 1). Western composite = NW, SW, NC, SC regions (non-shaded area); Eastern composite = E region (shaded area); Prairie composite = all regions.

[c] Unable to calculate 5-year average for particle size index due to change in method.

Harvest assessment composites represent grain available for export and were prepared from samples received up to October 15, 2024. Composites were graded according to Export Grade Determinant Tables in the Official Grain Grading Guide (https://www.grainscanada.gc.ca/en/grain-quality/official-grain-grading-guide/). Milling, analytical and end-product analysis was conducted by Cereals Canada following the Methods of Analysis on Cereals Canada's website (https://cerealscanada.ca/analytical-methods/).

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No. 1 CWRS Western Composite[b]

Flour[a]	2024			2023			5-Year Average		
Extraction	Straight Grade 75.5%	74%	60%	Straight Grade 75.1%	74%	60%	StraightGrade 75.1%	74%	60%
Protein Content, %	13.3	13.2	12.6	13.6	13.5	13.1	13.5	13.3	12.9
Protein Loss, %	0.7	0.8	1.4	0.7	0.8	1.2	0.6	0.8	1.2
Wet Gluten Content, %	35.0	35.0	33.9	36.8	36.9	35.5	36.4	36.5	34.9
Gluten Index, %	98	97	99	95	95	97	94	94	96
Ash Content, %	0.46	0.44	0.39	0.43	0.43	0.38	0.44	0.43	0.39
Colour, L*	84.7	85.1	85.5	84.6	85.1	85.4	84.8	85.0	85.6
Starch Damage, UCD	24.0	24.5	24.5	24.2	24.2	23.5	24.7	24.8	24.6
Amylograph Peak Viscosity, BU	690	689	728	584	597	693	622	644	687
Farinograph									
Absorption, %	61.8	62.0	61.8	62.4	62.2	61.8	64.4	64.5	64.0
Dough Development Time, min	8.5	7.7	9.6	8.4	7.9	10.9	8.3	8.2	9.8
Stability, min	24.0	24.7	47.7	16.7	22.5	48.1	23.4	25.4	39.4
Mixing Tolerance Index, BU	12	14	6	21	14	9	16	14	8
Extensograph (135 min)									
Max. Resistance (Rmax), BU	725	780	818	695	801	880	654	696	764
Extensibility (length), cm	21.4	21.2	18.7	21.6	21.0	18.1	21.2	20.8	18.8
Area, cm^2	195	210	183	187	205	190	172	179	174
Alveograph									
P (height x 1.1), mm	100	102	122	108	114	121	114	119	128
L (length), mm	209	214	169	181	169	160	150	151	136
P/L	0.48	0.48	0.72	0.60	0.67	0.76	0.85	0.87	1.02
W, 10^{-4} J	616	643	648	594	607	611	553	583	586
Ie, %	64.7	65.7	65.6	64.7	66.1	65.7	67.7	67.7	67.7
Baking (No Time Dough)									
Absorption, %	65	-	-	64	-	-	67	-	-
Mixing Time, min	7.6	-	-	6.4	-	-	7.1	-	-
Specific Volume, cm^3/g	7.3	-	-	7.7	-	-	7.5	-	-
Total Bread Score (out of 10)	9.5	-	-	9.3	-	-	9.3	-	-
Crumb Colour, L*	80.5	-	-	80.9	-	-	80.3	-	-
Baking (Sponge & Dough)									
Absorption, %	64	-	65	63	-	64	67	-	66
Mixing Time, min	7.9	-	8.5	7.6	-	8.5	8.2	-	8.5
Specific Volume, cm^3/g	7.1	-	6.9	7.1	-	6.9	7.1	-	7.0
Total Bread Score (out of 10)	9.4	-	9.5	9.2	-	9.6	9.5	-	9.8
Crumb Colour, L*	82.4	-	82.7	80.9	-	82.4	81.8	-	82.7
Noodles (Fresh Yellow Alkaline)									
Colour (3h / 24h) L*	-	75.2 / 70.4	75.7 / 71.6	-	72.8 / 68.6	74.6 / 70.2	-	74.2 / 69.4	74.5 / 70.0
a*	-	0.06 / 0.61	-0.09 / 0.32	-	0.09 / 0.69	-0.14 / 0.39	-	0.10 / 0.67	0.04 / 0.55
b*	-	25.3 / 25.2	26.2 / 25.3	-	25.9 / 24.9	26.0 / 25.0	-	25.8 / 24.8	25.9 / 24.7
MCS (3.5 min.)[c], g/mm^2	-	39.8	35.6	-	38.5	38.7	-	39.0	37.0
Noodles (Fresh White Salted)									
Colour (3h / 24h) L*	-	75.7 / 72.8	76.9 / 74.4	-	74.9 / 71.8	75.2 / 72.9	-	75.2 / 72.0	76.3 / 73.5
a*	-	1.59 / 2.00	1.28 / 1.53	-	1.66 / 2.16	1.36 / 1.63	-	1.72 / 2.16	1.39 / 1.67
b*	-	25.5 / 24.8	25.1 / 24.8	-	25.2 / 24.7	25.4 / 24.9	-	25.0 / 24.4	25.0 / 24.6
MCS (3.5 min.)[c], g/mm^2	-	29.0	26.3	-	28.3	28.0	-	27.8	26.0

[a] Data are reported on a 14.0% moisture basis for flour except Alveograph which is reported on a 15.0% moisture basis and starch damage which is on as is basis.
[b] Refer to crop region map (Figure 1, non-shaded area).
[c] Maximun cutting stress of noodles cooked to 3.5 min.

No. 1 CWRS Eastern Composite[b]

Flour[a]	2024		2023		5-Year Average	
Extraction	Straight Grade 75.7%	74%	Straight Grade 75.1%	74%	Straight Grade 75.8%	74%
Protein Content, %	13.1	13.0	13.3	13.3	13.4	13.3
Protein Loss, %	1.0	1.1	0.8	0.8	0.9	1.0
Wet Gluten Content, %	34.9	34.6	33.6	34.7	36.0	35.8
Gluten Index, %	95	99	96	99	95	97
Ash Content, %	0.47	0.44	0.45	0.45	0.46	0.43
Colour, L*	84.6	85.0	84.5	84.7	84.6	85.1
Starch Damage, UCD	23.3	23.6	23.8	23.3	24.1	24.0
Amylograph Peak Viscosity, BU	644	691	562	540	601	608
Farinograph						
Absorption, %	61.8	62.1	62.0	61.9	63.7	63.6
Dough Development Time, min	6.9	8.1	8.5	7.7	7.9	7.9
Stability, min	18.0	18.2	17.5	17.3	20.9	22.9
Mixing Tolerance Index, BU	9	16	20	15	18	18
Extensograph (135 min)						
Max. Resistance (Rmax), BU	608	715	746	790	602	685
Extensibility (length), cm	21.5	20.5	20.6	20.3	22.2	21.3
Area, cm^2	164	182	190	196	168	180
Alveograph						
P (height x 1.1), mm	91	95	101	111	102	108
L (length), mm	218	197	183	157	167	156
P/L	0.42	0.48	0.55	0.71	0.65	0.73
W, 10^{-4} J	577	575	555	554	547	554
Ie, %	64.7	65.6	63.8	65.3	67.3	68.4
Baking (No Time Dough)						
Absorption, %	65	-	65	-	67	-
Mixing Time, min	6.9	-	6.6	-	6.8	-
Specific Volume, cm^3/g	7.8	-	7.5	-	7.7	-
Total Bread Score (out of 10)	9.8	-	9.2	-	9.6	-
Crumb Colour, L*	80.4	-	79.1	-	79.8	-
Baking (Sponge & Dough)						
Absorption, %	64	-	64	-	66	-
Mixing Time, min	7.8	-	7.1	-	8.0	-
Specific Volume, cm^3/g	7.1	-	7.2	-	7.3	-
Total Bread Score (out of 10)	9.4	-	9.4	-	9.6	-
Crumb Colour, L*	80.8	-	80.6	-	81.2	-
Noodles (Fresh Yellow Alkaline)						
Colour (3h / 24h) L*	-	74.2 / 70.4	-	72.0 / 68.0	-	73.3 / 69.1
a*	-	0.35 / 0.68	-	0.21 / 0.67	-	0.31 / 0.71
b*	-	25.3 / 24.8	-	25.7 / 24.8	-	25.6 / 24.6
MCS (3.5 min.)[c], g/mm^2	-	34.6	-	35.0	-	36.7
Noodles (Fresh White Salted)						
Colour (3h / 24h) L*	-	76.7 / 73.3	-	74.3 / 71.6	-	75.2 / 72.0
a*	-	1.66 / 2.15	-	1.72 / 2.15	-	1.89 / 2.29
b*	-	25.0 / 24.4	-	24.7 / 24.2	-	24.7 / 24.1
MCS (3.5 min.)[c], g/mm^2	-	25.9	-	25.1	-	26.2

[a] Data are reported on a 14.0% moisture basis for flour except Alveograph which is reported on a 15.0% moisture basis and starch damage which is on as is basis.
[b] Refer to crop region map (Figure 1, shaded area).
[c] Maximun cutting stress of noodles cooked to 3.5 min.

No. 2 CWRS Prairie Composite[b]

Flour [a]	2024		2023		5-Year Average	
Extraction	Straight Grade 75.2%	74%	Straight Grade 75.8%	74%	Straight Grade 75.5%	74%[d]
Protein Content, %	13.0	13.1	12.8	12.7	13.0	13.0
Protein Loss, %	1.0	0.9	0.7	0.8	0.9	0.9
Wet Gluten Content, %	34.1	34.2	32.7	34.0	34.7	35.2
Gluten Index, %	100	100	98	98	96	95
Ash Content, %	0.45	0.43	0.42	0.41	0.45	0.42
Colour, L*	84.9	84.6	84.5	84.8	84.7	84.9
Starch Damage, UCD	23.4	23.4	23.5	23.3	24.2	23.8
Amylograph Peak Viscosity, BU	675	676	475	497	472	493
Farinograph						
Absorption, %	61.3	61.5	61.3	61.0	63.3	63.1
Dough Development Time, min	9.4	8.7	6.5	8.6	7.3	8.2
Stability, min	35.8	41.7	14.6	17.1	18.4	22.7
Mixing Tolerance Index, BU	14	6	18	21	17	17
Extensograph (135 min)						
Max. Resistance (Rmax), BU	782	826	626	879	611	728
Extensibility (length), cm	19.3	19.2	23.4	19.9	22.2	20.4
Area, cm^2	185	201	187	215	169	183
Alveograph						
P (height x 1.1), mm	95	97	102	111	105	109
L (length), mm	184	188	176	161	147	148
P/L	0.52	0.52	0.58	0.69	0.77	0.79
W, 10^{-4} J	554	575	550	570	507	538
Ie, %	66.1	65.9	64.3	66.0	67.3	67.5
Baking (No Time Dough)						
Absorption, %	65	-	65	-	67	-
Mixing Time, min	7.6	-	6.7	-	6.8	-
Specific Volume, cm^3/g	7.4	-	7.9	-	7.6	-
Total Bread Score (out of 10)	9.1	-	9.2	-	9.3	-
Crumb Colour, L*	80.6	-	80.0	-	80.3	-
Baking (Sponge & Dough)						
Absorption, %	64	-	64	-	66	-
Mixing Time, min	7.8	-	6.5	-	7.8	-
Specific Volume, cm^3/g	7.2	-	7.2	-	7.3	-
Total Bread Score (out of 10)	9.5	-	9.5	-	9.7	-
Crumb Colour, L*	81.7	-	80.9	-	81.5	-
Noodles (Fresh Yellow Alkaline)						
Colour (3h / 24h) L*	-	74.1 / 70.1	-	73.3 / 69.4	-	73.3 / 69.1
a*	-	0.17 / 0.59	-	-0.05 / 0.56	-	0.21 / 0.76
b*	-	25.4 / 24.5	-	24.9 / 24.4	-	25.1 / 24.2
MCS (3.5 min.)[c], g/mm^2	-	37.9	-	36.4	-	37.4
Noodles (Fresh White Salted)						
Colour (3h / 24h) L*	-	76.7 / 73.8	-	74.4 / 71.7	-	75.2 / 72.2
a*	-	1.58 / 2.00	-	1.45 / 1.81	-	1.63 / 1.99
b*	-	24.8 / 24.4	-	24.2 / 23.3	-	23.9 / 23.4
MCS (3.5 min.)[c], g/mm^2	-	28.7	-	26.7	-	26.9

[a] Data are reported on a 14.0% moisture basis for flour except Alveograph which is reported on a 15.0% moisture basis and starch damage which is on as is basis.
[b] Refer to crop region map (Figure 1, all regions).
[c] Maximun cutting stress of noodles cooked to 3.5 min.
[d] Values represent 4-year average for No. 2 CWRS 74% extraction.

CWAD
Canada Western Amber Durum

Canada is the world's leading exporter of durum wheat. CWAD is recognized for its high protein content and semolina yield. Development of new CWAD varieties has resulted in improvements in yellow colour and gluten strength.

Top Five CWAD Varieties Grown in 2024

1. Transcend
2. CDC Defy
3. AAC Stronghold
4. CDC Precision
5. AAC Grainland

2024 EXECUTIVE SUMMARY

PRODUCTION
(5-year average, 2019-2023)

4.9 million tonnes

% of TOTAL WHEAT GROWN IN CANADA

15%

Protein

Protein content of No. 1 CWAD is similar to the 5-year average, while No. 2 and No. 3 CWAD have higher-than-average protein contents.

Advice from an Expert

Semolina milled from the 2024 CWAD crop has high yellow pigment content with good gluten strength and extensibility, and good processing quality.

Milling Quality

CWAD has a high percentage of hard vitreous kernels and low speck counts across all grades.

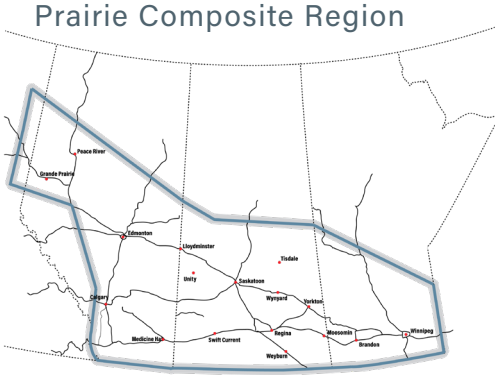
Grading Factors

A high proportion of the 2024 CWAD crop graded No. 1 or No. 2.

Application Performance

Spaghetti has excellent cooking quality, texture and bright yellow colour.

FIGURE 2
2024 Western Canada Prairie Composite Region



PRAIRIE COMPOSITE

No. 1 CWAD
Canada Western Amber Durum

Quality Parameter [a]	Prairie Composite [b]		
Wheat	2024	2023	5 yr avg.
Test Weight, kg/hL	81	81	81
Weight Per 1000 Kernels, g	34.4	37.9	38.1
Hard Vitreous Kernels, %	92	95	94
Protein Content, %	14.7	15.4	14.9
Protein Content, % (dry matter basis)	17.0	17.8	17.3
Wet Gluten Content, %	32.3	33.2	33.7
Gluten Index, %	78	73	71
Ash Content, %	1.58	1.52	1.60
Falling Number, s	479	418	463
Particle Size Index[c], %	41	40	-
Milling Semolina Yield Bühler Laboratory Mill			
Total Milling Yield, %	67.5	67.0	68.4
Semolina Yield, %	63.3	63.1	64.1

PRAIRIE COMPOSITE

No. 2 CWAD
Canada Western Amber Durum

Quality Parameter [a]	Prairie Composite [b]		
Wheat	2024	2023	5 yr avg.
Test Weight, kg/hL	79	79	79
Weight Per 1000 Kernels, g	32.8	35.7	35.7
Hard Vitreous Kernels, %	93	92	89
Protein Content, %	15.7	15.7	15.3
Protein Content, % (dry matter basis)	18.2	18.1	17.7
Wet Gluten Content, %	34.3	35.6	34.7
Gluten Index, %	84	67	71
Ash Content, %	1.69	1.51	1.64
Falling Number, s	441	386	426
Particle Size Index[c], %	42	40	-
Milling Semolina Yield Bühler Laboratory Mill			
Total Milling Yield, %	65.1	64.9	66.9
Semolina Yield, %	60.4	60.9	62.3

PRAIRIE COMPOSITE

No. 3 CWAD
Canada Western Amber Durum

Quality Parameter [a]	Prairie Composite [b]
Wheat	2024
Test Weight, kg/hL	78
Weight Per 1000 Kernels, g	31.4
Hard Vitreous Kernels, %	95
Protein Content, %	16.5
Protein Content, % (dry matter basis)	19.1
Wet Gluten Content, %	36.2
Gluten Index, %	79
Ash Content, %	1.77
Falling Number, s	481
Particle Size Index[c], %	43
Milling Semolina Yield Bühler Laboratory Mill	
Total Milling Yield, %	65.6
Semolina Yield, %	61.1

[a] Data are reported on a 13.5% moisture basis.

[b] Refer to crop region map (Figure 2).

[c] Unable to calculate 5-year average for particle size index due to change in method.

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No. 1 CWAD Prairie Composite[b]

Semolina [a]	2024	2023	5-Year Average
Protein Content, %	13.9	14.5	14.1
Protein Loss, %	0.8	0.9	0.8
Wet Gluten Content, %	35.0	35.6	36.3
Gluten Index, %	85	80	76
Ash Content, %	0.78	0.70	0.74
Yellow Pigment Content, ppm	11.6	11.3	11.4
Colour, b* (yellowness)	33.0	32.6	32.6
Granulation			
> 425 µm, %	1.7	1.1	1.1
> 250 µm, %	52.7	52.7	51.1
> 180 µm, %	30.2	30.3	31.3
> 150 µm, %	7.8	7.7	8.0
< 150 µm, %	7.6	8.1	8.5
Semolina Speck Count per 50 cm^2			
Total Specks	5	5	6
Dark Specks	0	1	1
Large Specks (≥0.06 mm^2)	3	3	4
Alveograph			
P (height x 1.1), mm	101	110	100
L (length), mm	128	91	98
P/L	0.79	1.21	1.07
W, 10^{-4} J	367	316	308
Ie, %	55.8	53.8	55.8
Spaghetti			
Firmness, g	764	790	843
Cooking Loss, %	4.87	4.83	4.76
Colour L*	72.2	71.3	72.2
a*	4.91	4.04	4.86
b*	65.5	64.1	65.5

[a] Data are reported on a 14.0% moisture basis for semolina except Alveograph which is reported on a 15.0% moisture basis.
[b] Refer to crop region map (Figure 2).

2024
No. 2 CWAD Prairie Composite[b]

Semolina[a]	2024	2023	5-Year Average
Protein Content, %	14.7	14.8	14.3
Protein Loss, %	1.0	0.9	1.0
Wet Gluten Content, %	35.9	37.4	36.4
Gluten Index, %	87	72	77
Ash Content, %	0.79	0.69	0.75
Yellow Pigment Content, ppm	11.5	11.3	11.6
Colour, b* (yellowness)	32.8	32.4	32.4
Granulation			
> 425 µm, %	1.2	0.5	0.8
> 250 µm, %	52.2	54.5	50.5
> 180 µm, %	31.2	29.0	31.6
> 150 µm, %	7.8	7.4	8.1
< 150 µm, %	7.6	8.6	9.0
Semolina Speck Count per 50 cm²			
Total Specks	6	6	7
Dark Specks	1	2	1
Large Specks (≥0.06 mm²)	3	3	4
Alveograph			
P (height x 1.1), mm	99	106	98
L (length), mm	138	96	104
P/L	0.72	1.10	0.98
W, 10^{-4} J	390	314	319
Ie, %	58.0	53.5	57.0
Spaghetti			
Firmness, g	798	753	868
Cooking Loss, %	4.82	4.63	4.78
Colour L*	72.2	71.3	72.3
a*	5.50	4.12	5.11
b*	65.7	64.3	66.0

2024
No. 3 CWAD Prairie Composite[b]

Semolina[a]	2024[c]
Protein Content, %	15.7
Protein Loss, %	0.8
Wet Gluten Content, %	37.1
Gluten Index, %	87
Ash Content, %	0.82
Yellow Pigment Content, ppm	11.8
Colour, b* (yellowness)	32.8
Granulation	
> 425 um, %	1.3
> 250 um, %	51.2
> 180 um, %	31.2
> 150 um, %	8.0
< 150 um, %	8.3
Semolina Speck Count per 50 cm²	
Total Specks	6
Dark Specks	1
Large Specks (≥0.06 mm²)	3
Alveograph	
P (height x 1.1), mm	103
L (length), mm	130
P/L	0.79
W, 10^{-4} J	398
Ie, %	58.5
Spaghetti	
Firmness, g	873
Cooking Loss, %	4.80
Colour L*	71.5
a*	5.55
b*	66.2

[a] Data are reported on a 14.0% moisture basis for semolina except Alveograph which is reported on a 15.0% moisture basis.
[b] Refer to crop region map (Figure 2).
[c] A No. 3 CWAD composite was not prepared in 2023 therefore no comparative data is available.

CPSR
Canada Prairie Spring Red

With medium kernel hardness and protein content, CPSR has high milling yields with low flour ash resulting in flour with bright colour. Flour milled from CPSR can be used to produce high-quality baked goods and noodles.

Top Five CPSR Varieties Grown in 2024

1. AAC Penhold
2. Accelerate
3. AAC Goodwin
4. AAC Foray
5. 5700PR

2024 EXECUTIVE SUMMARY

PRODUCTION
(5-year average, 2019-2023)

1.9 million tonnes

% of TOTAL WHEAT GROWN IN CANADA

6%

Protein

CPSR from the 2024 crop year has good protein content that is comparable to last year and the 5-year average.

Advice from an Expert

CPSR offers good water absorption and gluten strength resulting in high quality end-products.

Milling Quality

CPSR from the 2024 crop year demonstrates milling performance characteristic of CPSR quality with good test weight.

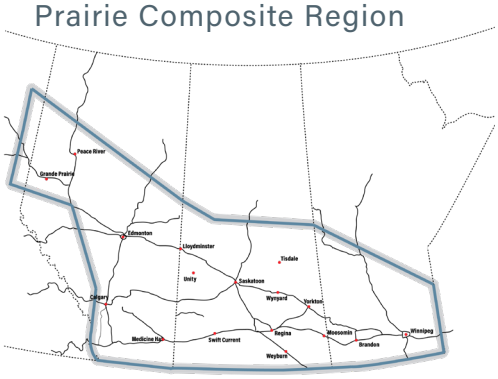
Grading Factors

A very high proportion of the 2024 CPSR crop graded No. 1 or No. 2.

Application Performance

Flour milled from CPSR has good processing quality resulting in high-quality pan bread with good loaf volume and crumb structure, and noodles with good colour and colour retention.

FIGURE 2
2024 Western Canada Prairie Composite Region



PRAIRIE COMPOSITE

No. 1 CPSR
Canada Prairie Spring Red

Quality Parameter [a]	Prairie Composite [b]		
Wheat	2024	2023	5 yr avg.
Test Weight, kg/hL	83	83	83
Weight Per 1000 Kernels, g	34.4	37.7	39.0
Protein Content, %	12.7	12.9	12.9
Protein Content, % (dry matter basis)	14.7	14.9	14.9
Wet Gluten Content, %	29.3	28.6	30.0
Gluten Index, %	94	93	89
Ash Content, %	1.46	1.41	1.46
Falling Number, s	383	376	397
Particle Size Index[c], %	55	56	-
Milling Flour Yield Bühler Laboratory Mill			
Total Products Basis, %	74.8	74.8	75.3
0.50% Ash Basis, %	78.8	76.3	77.3

[a] Data are reported on a 13.5% moisture basis.

[b] Refer to crop region map (Figure 2).

[c] Unable to calculate 5-year average for particle size index due to change in method.

Harvest assessment composites represent grain available for export and were prepared from samples received up to October 15, 2024. Composites were graded according to Export Grade Determinant Tables in the Official Grain Grading Guide (https://www.grainscanada.gc.ca/en/grain-quality/official-grain-grading-guide/). Milling, analytical and end-product analysis was conducted by Cereals Canada following the Methods of Analysis on Cereals Canada's website (https://cerealscanada.ca/analytical-methods/).

CEREALS CANADA
Commission canadienne des grains
Canadian Grain Commission
Canada

No. 1 CPSR Prairie Composite[b]

Flour[a]	2024		2023		5-Year Average	
Extraction	Straight Grade 74.8%	74%	Straight Grade 74.8%	74%	Straight Grade 75.3%	74%
Protein Content, %	11.9	11.8	12.1	12.0	12.1	11.9
Protein Loss, %	0.8	0.9	0.8	0.9	0.8	1.0
Wet Gluten Content, %	30.2	29.6	28.7	31.1	31.0	31.3
Gluten Index, %	99	99	98	98	97	97
Ash Content, %	0.42	0.40	0.47	0.44	0.46	0.43
Colour, L*	85.3	85.4	84.7	85.0	84.7	85.1
Starch Damage, UCD	23.8	24.3	23.6	23.2	24.3	24.4
Amylograph Peak Viscosity, BU	706	729	411	427	588	617
Farinograph						
Absorption, %	60.0	60.2	60.5	60.4	62.3	62.3
Dough Development Time, min	7.9	9.0	4.7	5.4	7.1	7.5
Stability, min	49.3	52.9	14.6	14.8	21.8	24.8
Mixing Tolerance Index, BU	9	8	17	19	18	15
Extensograph (135 min)						
Max. Resistance (Rmax), BU	840	906	668	755	667	712
Extensibility (length), cm	18.7	18.7	20.0	18.7	19.9	19.5
Area, cm^2	196	205	168	175	167	172
Alveograph						
P (height x 1.1), mm	108	116	116	113	118	119
L (length), mm	171	153	136	160	129	134
P/L	0.63	0.76	0.85	0.71	0.95	0.93
W, 10^{-4} J	573	568	498	537	504	524
Ie, %	63.8	64.0	62.3	61.9	65.2	65.4
Baking (No Time Dough)						
Absorption, %	65	-	64	-	66	-
Mixing Time, min	8.3	-	6.3	-	6.9	-
Specific Volume, cm^3/g	7.2	-	7.3	-	7.2	-
Total Bread Score (out of 10)	8.9	-	8.9	-	9.2	-
Crumb Colour, L*	80.5	-	79.4	-	80.1	-
Baking (Sponge & Dough)						
Absorption, %	64	-	63	-	65	-
Mixing Time, min	8.4	-	6.6	-	7.7	-
Specific Volume, cm^3/g	6.6	-	7.1	-	7.0	-
Total Bread Score (out of 10)	9.6	-	9.4	-	9.6	-
Crumb Colour, L*	82.3	-	81.0	-	81.8	-
Noodles (Fresh White Salted)						
Colour (3h / 24h) L*	-	77.3 / 72.4	-	74.3 / 69.3	-	75.3 / 70.5
a*	-	1.21 / 1.61	-	1.32 / 1.87	-	1.32 / 1.76
b*	-	23.8 / 22.9	-	23.4 / 22.0	-	24.2 / 22.8
MCS (3.5 min.)[c], g/mm^2	-	27.9	-	28.2	-	27.1

[a] Data are reported on a 14.0% moisture basis for flour except Alveograph which is reported on a 15.0% moisture basis and starch damage which is on as is basis.
[b] Refer to crop region map (Figure 2).
[c] Maximun cutting stress of noodles cooked to 3.5 min.

CESRW
Canada Eastern Soft Red Winter

Grown largely in Ontario, with additional production in Quebec and the Atlantic provinces, CESRW is a soft, low protein wheat ideal for cakes, pastry, cereals, crackers, biscuits, and fillings. It is easy to mill and typically has a high flour yield resulting in flour that is bright and creamy in colour.

2024 EXECUTIVE SUMMARY

ONTARIO PRODUCTION

2.2 million tonnes

% of TOTAL WHEAT GROWN IN CANADA

7%

% of WINTER WHEAT GROWN IN CANADA

81%

Advice from an Expert

CESRW shows consistent quality in all growing regions with a very high percentage of wheat in the milling grades. It has a good Falling Number with an average of 323 seconds. Mildew was the primary downgrading factor between No. 1 and No. 2.

Grading Factors

88% graded No. 2 or above.

Protein

9.0%

Protein levels are acceptable for this class. Wheat protein is lower than last year but the flour protein content is similar to last year.

Milling Quality

Milling yield and ash content are higher than last year. Milling yield on a corrected ash basis (0.50%) is lower than last year but it remains within an acceptable range.

Application Performance

Somewhat elevated strength, as expressed by Alveograph P/L ratio, resulted in a lower cookie spread factor which was within an acceptable range.

No. 2 or better
Canada Eastern Soft Red Winter

Quality Parameter [a]	CESRW Composite [b]		
Wheat	2024	2023	5 yr avg.
Test Weight, kg/hL	79.3	78.8	79.0
Weight Per 1000 Kernels, g	35.7	34.2	33.6
Protein Content, %	9.0	9.5	9.4
Protein Content, % (dry matter basis)	10.4	11.0	10.9
Ash Content, %	1.24	1.39	1.36
Falling Number, s	323	318	327
Milling Flour Yield Bühler Laboratory Mill			
Total Products Basis, %	72.7	70.2	72.1
0.50% Ash Basis, %	73.2	76.2	76.2

[a] Data are reported on a 13.5% moisture basis.

[b] Refer to blue outlined area in crop region map (Figure 3).

FIGURE 3
2024 Eastern Canada CESRW Composite Region

Analysis carried out by the SGS Grains Analytical Testing Laboratory. Methods used at SGS are available upon request.

No. 2 or better CESRW Composite[b]

Flour[a]	2024	2023	5-Year Average
Extraction	Straight Grade 72.7%	Straight Grade 70.2%	Straight Grade 72.1%
Protein Content, %	7.7	7.9	8.1
Protein Loss, %	1.4	1.6	1.4
Ash Content, %	0.49	0.38	0.42
Colour L*	91.0	91.3	91.6
a*	-1.3	-1.4	-1.3
b*	8.8	8.1	8.8
Starch Damage, UCD	14.2	16.3	16.6
Amylograph Peak Viscosity, BU	498	447	553
Farinograph			
Absorption, %	52.8	51.3	51.5
Dough Development Time (DDT), min	1.2	1.1	1.1
Stability, min	2.1	1.5	1.7
Mixing Tolerance Index (MTI), BU	111	114	103
Alveograph			
P (height x 1.1), mm	29	25	26
L (length), mm	86	133	113
P/L	0.34	0.19	0.25
W, 10^{-4} J	68	79	71
Solvent Retention Capacity			
Distilled Water, %	54.4	54.4	54.3
Sucrose, %	99.3	87.0	91.1
Lactic Acid, %	100.9	108.9	106.0
Sodium Carbonate, %	77.3	75.9	76.2
Bake (Sugar Snap Cookie Method)			
Cookie Width (w), mm	80.3	82.6	82.4
Cookie Thickness (t), mm	10.4	9.5	9.9
w/t Ratio	7.7	8.7	8.3
Cookie Spread Factor	77	87	83

[a] Data are reported on a 14.0% moisture basis for flour except Alveograph which is reported on a 15.0% moisture basis and starch damage which is on as is basis.

[b] Refer to blue outlined area in crop region map (Figure 3).

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